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10/558,940	09/07/2006	John Piper	41009.0200	6344

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EXAMINER

MILLER, ROSE MARY

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2856

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12/09/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/558,940	Applicant(s) PIPER, JOHN	
	Examiner ROSE M. MILLER	Art Unit 2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 August 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14, 16-39, 42-48 and 50 is/are pending in the application.
- 4a) Of the above claim(s) 6, 7, 16-39, 42-48 and 50 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 8 and 11-14 is/are rejected.
- 7) ☒ Claim(s) 9 and 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 November 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>11/30/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION
Election/Restrictions

1. Claims 6-7, 16-39, 42-48, and 50 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 12 August 2009.
2. Applicant's election with traverse of Species 1 in the reply filed on 12 August 2009 is acknowledged. The traversal is on the ground(s) that the species "are the same inventive concept, but are variations on the" inventive concept. This is not found persuasive because by definition, a plurality species ARE the same inventive concept, but each species consists of a distinct variation upon that inventive concept. If the inventive concept was NOT the same, Applicant would have received a Restriction Requirement, not an Election of Species. A proper response to the Election of Species Requirement is not to say that the species are the "same inventive concept" but to state that the variations of the species are obvious one over the other and therefore are not patentably distinct. A submission of a statement by Applicant putting forth the argument that the species are obvious over one another and are not patentably distinct would result in the species requirement being withdrawn and all the species being prosecuted. As Applicant has not provided such a statement, the Election of Species requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 1-5, 8, and 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Haynes (US Re. 36,130)** in view of **Karlsson (US 4,041,379)** and **Berner et al. (US 3,913,388)**.

With regards to claim 1, **Haynes '130** discloses a device for supporting an ultrasonic transducer (S) used for ultrasonic defect testing of pipe (P), the device comprising: a transducer locating portion (62) adapted for positioning adjacent to a pipe to locate the transducer in proximity of the pipe (see Figures); and a guide surface (80, 82, 66) that is fixed against movement in relation to the transducer locating portion (see column 3 lines 20-31).

Haynes '130 discloses the claimed invention with the exception of the guide surface being adapted such that, when the device is moved relative to the pipe, the guide surface can engage and traverse hindrances in the pipe to such relative device movement.

Karlsson discloses in Figure 1 a contact surface 26 which is adapted such that when the device is moved relative to the object being inspected, the guide surface (26) can engage and traverse hindrances in the test object (inherent in the shape of the surface shown in Figure 1 which includes bevels at either end of the contact surface 26).

Berner et al. teaches at column 3 line 50 – column 4 line 14 utilizing a transducer support 11 which includes a ramp (bevel) 11a which allows the transducer support to detect and traverse hindrances such as bumps in the test object 1.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the system of **Haynes '130** with the contact surface of either **Karlsson** or **Berner et al.** in order to traverse hindrances in the test object (pipe) as both **Karlsson** and **Berner et al.** teach that the use of the guide surface allows the ultrasonic transducer locating portion (transducer support) to traverse hindrances such as bumps which can occur in the test object.

With regards to claim 2, **Haynes '130**, **Karlsson** and **Berner et al.** teach the guide surface being located forwardly in the transducer locating portion (**Haynes '130** teaches guide surfaces 80 and 82 in front and back as does **Karlsson** in Figure 1 while **Berner et al.** discloses the guide surface 11 being in front of the transducer support) such that hindrances found in the path of the transducer can be overcome when the device is moved relatively lengthwise along the pipe.

With respect to claim 3, **Haynes '130** discloses the guide surface extending obliquely with respect to a longitudinal axis of the pipe (surfaces 80 and 82 are tapered with respect to the longitudinal axis of the pipe) as does **Berner et al.** which shows the guide surface 11a being at an oblique angle with respect to the direction of travel of the ultrasonic transducer.

With respect to claim 4, **Haynes '130** discloses the guide surface being at an end of the transducer locating portion (see Figure 4). With regards to the guide surface being part of a flange extending away from the transducer locating portion, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the system of **Haynes '130** with such a guide surface as **Berner et al.** teaches that a guide surface extending away from the transducer locating portion allows the guiding surface to guide the transducer over hindrances such as bumps which could interfere with the inspection of the test object.

With regards to claim 5, **Haynes '130** discloses the claimed invention with the exception of the guide surface being defined as a bevel undercut at an in-use forward end of the device. **Berner et al.** teaches utilizing a bevel undercut at an in-use forward end of the device in order to allow the ultrasonic transducer support system to move over hindrances such as bumps in the test object. Therefore, it would have been

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obvious to one of ordinary skill in the art to modify **Haynes '130** to include the bevel undercut guide surface of **Berner et al.** in order to move the transducer support over hindrances such as bumps which can be found in the test object.

With regards to claim 8, **Haynes '130** teaches a transducer locator element (62, 64, 66, 74) being disposed within the transducer locating portion (see Figure 4), into which element the transducer is mountingly located in use (see Figure 4).

With regards to claim 11, **Haynes '130** discloses the transducer locating portion (62, 64, 66, 74) including a curved in-use underside surface (68) for close-facing positioning with the pipe in use (see column 3 lines 20-31).

With regards to claim 12, it is inherent in the system of **Haynes '130** that the curved surface be defined by a radius that is closely matched to a radius defining the external surface of the pipe as **Haynes '130** clearly indicates at column 3 lines 20-31 that the curved surface 68 "which rides on the outer surface of the pipe P." In order for the curved surface to "ride on the outer surface", the curvature of the surface must closely match the curvature of the pipe being inspected.

With regards to claim 13, **Haynes '130** discloses the device being mounted in an apparatus (A) for moving the device (S) relatively along and/or around and/or towards/away from the pipe in use (see column 4 lines 31-64 which discloses the "rotational speed of the sensor assembly S").

With regards to claim 14, **Haynes '130** discloses a plurality of the ultrasonic transducer supporting devices being mounted in the apparatus (see Figures 1-3).

Allowable Subject Matter

6. Claims 9 and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record fails to teach and/or suggest a device for supporting an ultrasonic transducer used for ultrasonic defect testing of pipe, the device comprising: a

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transducer locating portion adapted for positioning adjacent to a pipe to locate the transducer in proximity of the pipe; and a guide surface that is fixed against movement in relation to the transducer locating portion, the guide surface being adapted such that, when the device is moved relative to the pipe, the guide surface can engage and traverse hindrances in the pipe to such relative device movement, wherein a transducer locator element is disposed within the transducer locating portion, into which element the transducer is mountingly located in use, and especially wherein the transducer locator element laterally surrounds the transducer and is formed from a material resistant to the propagation of ultrasonic waves therethrough, such that ultrasonic waves are not directed laterally through the device in use.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Jaeggi (US 5,522,265) discloses a device for the ultrasonic measuring of the defects of a railway track.

Nugent (US 5,549,004) discloses a hand held tube wall thickness ultrasonic measurement system.

Siverling et al. (US 2003/0233880 A1) discloses an ultrasonic tubular inspection apparatus.

Siverling et al. (US 2004/0020298 A1) discloses an apparatus for end to end ultrasonic inspection of tubular goods.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROSE M. MILLER whose telephone number is (571)272-2199. The examiner can normally be reached on Monday - Friday, 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on 571-272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/R. M. M./
Examiner, Art Unit 2856
5 December 2009

/Daniel S. Larkin/
Primary Examiner, Art Unit 2856